

Patent Application

## CLAIMS:

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What is claimed is:

1. A method for normalizing two or more encoded text data strings, said encoded text data strings being expressed as a series of characters and meta data fields, said meta data fields containing all information regarding higher order control, formatting and display for the characters, said method comprising the steps of:

receiving at least two strings for comparison;

determining whether both or all of the strings are in similar or different meta normal form;

responsive to determining that said strings are in different meta normal forms, converting one or more strings to a selected meta normal form such that all strings are in similar meta normal forms;

comparing said strings to each other on a character-by-character basis irrespective of meta data fields in each string; and

determining that said strings are equivalent if said step of comparing yields a match.

- The method as set forth in Claim 1 wherein said step of converting comprises converting at least one string to Normal Form Meta Decomposed form.
- The method as set forth in Claim 1 wherein said step of converting comprisesconverting at least one string to Normal Form Meta Composed form.
  - 4. The method as set forth in Claim 1 wherein said step of comparing comprises: removing from said strings all meta data fields to yield pure strings

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which are free of glyph and display-related information; and comparing said pure strings on a character-by-character basis to determine the equivalency of said strings.

5. A computer readable medium encoded with software for
normalizing two or more text data strings, said text data strings being
expressed as a series of characters and meta data fields, said meta data fields
containing all information regarding higher order control, formatting and
display for the characters, said software causing a computer to perform the
following actions:

receive at least two strings for comparison;

determine whether all of the strings are in similar or different meta normal form;

responsive to determining that said strings are in different meta normal forms, convert one or more strings to a selected meta normal form such that all strings are in similar meta normal forms;

compare said strings to each other on a character-by-character basis irrespective of meta data in each string; and

determine that said strings are equivalent if said step of comparing yields a match.

20 6. The computer readable medium as set forth in Claim 5 wherein said software for converting one or more strings to a similar meta normal form comprises software for converting at least one string to Normal Form Meta Decomposed



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- 7. The computer readable medium as set forth in Claim 5 wherein said software for converting one or more strings to a similar meta normal form comprises software for converting at least one string to Normal Form Meta Composed form.
- 8. The computer readable medium as set forth in Claim 5 wherein said software for comparing said strings comprises software for performing the following actions:

removing from said strings all meta data to yield pure strings which

10 are free of glyph and display-related information; and

comparing said pure strings on a character-by-character basis to determine the equivalency of said strings.

9. A system for normalizing two or more encoded text data strings, said encoded text data strings being expressed as a series of characters and meta data fields, said meta data fields containing all information regarding higher order control, formatting and display for the characters, said system comprising:

a meta form comparitor for determining whether both or all of the strings are in similar or different meta normal form;

a meta form converter adapted to convert one or more strings to a selected meta normal form such that all strings are in similar meta normal forms responsive to a determination by said meta form comparitor that said strings are in different meta normal forms;

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a string content comparitor for comparing said strings to each other on a character-by-character basis irrespective of meta data fields in each string; and

- an equivalency evaluator for signaling that said strings are equivalent if said string content comparitor indicates a character-by-character match is found.
- 10. The system as set forth in Claim 9 wherein said meta form converter is adapted to convert a string to Normal Form Meta Decomposed form.
- 10 11. The system as set forth in Claim 9 wherein said meta form converter is adapted to convert a string to Normal Form Meta Composed form.
- The system as set forth in Claim 9 wherein said string content comparitor comprises a meta data field filter for removing from said strings all meta data fields to yield pure strings which are free of glyph and display-related information such that said pure strings may be compared on a character-by-character basis to determine the equivalency of said strings.